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Applicant :	Raymond Kurzweil	Art Unit :	3715
Serial No. :	10/735,294	Examiner :	Cameron Saadat
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Title :	VIRTUAL ENCOUNTERS		

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents  
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APPEAL BRIEF ON BEHALF OF RAYMOND KURZWEIL

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**(i.) Real Party in Interest**

The real party in interest in the above application is Kurzweil Technologies, Inc.

**(ii.) Related Appeals and Interferences**

The Appellant is not aware of any appeals or interferences related to the above-identified patent application.

**(iii.) Status of Claims**

This is an appeal from the decision of the Primary Examiner in an Office Action dated January 8, 2010, rejecting claims 1-23, all of the claims in the application. The claims have been twice rejected.

Appellant filed a Notice of Appeal on **July 1, 2010**. Claims 1-23 are the subject of this appeal.

**(iv.) Status of Amendments**

All amendments have been entered.

**(v.) Summary of Claimed Subject Matter**

Claim 1

One aspect of Appellant's invention is set out in claim 1 as a virtual encounter system.

*"Referring to FIG. 1, a virtual encounter system 10 includes ... ."*<sup>1</sup>

The inventive features of claim 1 include a mannequin having life-like features, the mannequin including a body, a camera coupled to the body, the camera for sending first video signals over a communications network, and a microphone coupled to the body, the microphone for sending first audio signals over the communications network. *"... a virtual encounter system includes a mannequin having life-like features. The mannequin includes a body ...."*<sup>2</sup>

*"Referring to FIGS. 2A and 2B, each mannequin 12a-12b includes a camera (e.g., camera 30a and camera 30b) positioned in a left eye socket (e.g., left eye socket 34a and left eye socket 34b),*

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<sup>1</sup> Appellant's Specification page 3, line 19 et seq.

<sup>2</sup> Id. page 1, lines 19-21.

*and a camera (e.g., camera 36a and camera 36b) positioned in a right eye socket (e.g., right eye socket 38a and right eye socket 38b). Each mannequin 12a-12b also includes a microphone (e.g., microphone 42a and microphone 42b) ... send the audio and video signals from the cameras and the microphones to communication gateway 16a-16b.”<sup>3</sup> “Gateway 16a and gateway 16b are connected by a network 24 (e.g., the Internet).”<sup>4</sup>*

The inventive features of claim 1 also include a set of goggles including a display to render electrical signals representative of second video signals received from the communications network and a transducer to transduce electrical signals representative of second audio signals received from the communications network, the respective second video signals and second audio signals at least partially reflect views and sound of a location different from a location of the mannequin in real-time. *“... rendering the video signals received from the communications network using a display device embedded in a set of goggles and transducing the audio signals received from the communications network using a transducer embedded in the set of goggles.”<sup>5</sup> “... when user 22a interacts with mannequin 12a in location A by seeing and hearing the mannequin, user 22a perceives seeing user 22b and hearing user 22b in location B. Likewise, user 22b listens and sees mannequin 12b but perceives listening and seeing user 22a in location A.”<sup>6</sup>*

#### Claim 9

Claim 9 is directed to a method of having a virtual encounter. *“Referring to FIG. 1, a virtual encounter system 10 includes ... .”<sup>7</sup>*

The inventive features of claim 9 include sending first audio signals over a communications network, the first audio signals being produced from a microphone coupled to a mannequin having life-like features. *“... a mannequin having life-like features.”<sup>8</sup> “Each mannequin 12a-12b also includes a microphone (e.g., microphone 42a and microphone 42b) ... send the audio and video signals from the cameras and the microphones to communication*

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<sup>3</sup> Appellant's Specification page 4, lines 8-23.

<sup>4</sup> *Id.* page 3, lines 27-28.

<sup>5</sup> *Id.* page 2, lines 5-9.

<sup>6</sup> *Id.* page 3, line 2 to page 4, line 3.

<sup>7</sup> *Id.* page 3, line 19 et seq.

<sup>8</sup> *Id.* page 1, lines 19-21.

*gateway 16a-16b.”*<sup>9</sup> *“Gateway 16a and gateway 16b are connected by a network 24 (e.g., the Internet).”*<sup>10</sup>

The inventive features of claim 9 also include sending first video signals over the communications network, the first video signals being produced from a camera coupled to the mannequin. *“Referring to FIGS. 2A and 2B, each mannequin 12a-12b includes a camera (e.g., camera 30a and camera 30b) positioned in a left eye socket (e.g., left eye socket 34a and left eye socket 34b), and a camera (e.g., camera 36a and camera 36b) positioned in a right eye socket (e.g., right eye socket 38a and right eye socket 38b).”*<sup>11</sup> *“Each mannequin 12a-12b further includes a transmitter (e.g., transmitter 72a and transmitter 72b) containing a battery (not shown). Transmitters 72a-72b send the audio and video signals from the cameras and the microphones to communication gateway 16a-16b.”*<sup>12</sup> *“Gateway 16a and gateway 16b are connected by a network 24 (e.g., the Internet).”*<sup>13</sup>

The inventive features of claim 9 also include rendering second video signals received from the communications network using a display device embedded in a set of goggles. *“... rendering the video signals received from the communications network using a display device embedded in a set of goggles ....”*<sup>14</sup>

The inventive features of claim 9 also include transducing second audio signals received from the communications network using a transducer embedded in the set of goggles, the second video and second audio signal at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real-time. *“... transducing the audio signals received from the communications network using a transducer embedded in the set of goggles.”*<sup>15</sup> *“... when user 22a interacts with mannequin 12a in location A by seeing and hearing the mannequin, user 22a perceives seeing user 22b and hearing user 22b in location B. Likewise,*

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<sup>9</sup> Appellant's Specification page 4, lines 16-23.

<sup>10</sup> *Id.* page 3, lines 27-28.

<sup>11</sup> *Id.* page 4, lines 8-15.

<sup>12</sup> *Id.* page 4, lines 19-23.

<sup>13</sup> *Id.* page 3, lines 27-28.

<sup>14</sup> *Id.* page 2, lines 5-7.

<sup>15</sup> *Id.* page 2, lines 8-9.

*user 22b listens and sees mannequin 12b but perceives listening and seeing user 22a in location A.”*<sup>16</sup>

### Claim 15

Claim 15 is directed to a virtual encounter system. *“Referring to FIG. 1, a virtual encounter system 10 includes ... ”*<sup>17</sup>

The inventive features of claim 15 include a mannequin having life-like features, the mannequin having a human-like body supporting a camera for sending first video signals over a communications network and a microphone for sending first audio signals over the communications network. *“... a virtual encounter system includes a mannequin having life-like features. The mannequin includes a body ... ”*<sup>18</sup> *“Referring to FIGS. 2A and 2B, each mannequin 12a-12b includes a camera (e.g., camera 30a and camera 30b) positioned in a left eye socket (e.g., left eye socket 34a and left eye socket 34b), and a camera (e.g., camera 36a and camera 36b) positioned in a right eye socket (e.g., right eye socket 38a and right eye socket 38b). Each mannequin 12a-12b also includes a microphone (e.g., microphone 42a and microphone 42b) ... send the audio and video signals from the cameras and the microphones to communication gateway 16a-16b.”*<sup>19</sup> *“Gateway 16a and gateway 16b are connected by a network 24 (e.g., the Internet).”*<sup>20</sup>

The inventive features of claim 15 also include a set of goggles housing a display device to render second video signals received from the communications network and a transducer device to transduce second audio signals received from the communications network, the respective second video signals and second audio signals at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real-time. *“... rendering the video signals received from the communications network using a display device embedded in a set of goggles and transducing the audio signals received from the communications network using a transducer embedded in the set of goggles.”*<sup>21</sup> *“... when user 22a interacts with mannequin 12a in location A by seeing and hearing the mannequin, user 22a*

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<sup>16</sup> Appellant's Specification page 3, line 2 to page 4, line 3.

<sup>17</sup> *Id.* page 3, line 19 et seq.

<sup>18</sup> *Id.* page 1, lines 19-21.

<sup>19</sup> *Id.* page 4, lines 8-23.

<sup>20</sup> *Id.* page 3, lines 27-28.

<sup>21</sup> *Id.* page 2, lines 5-9.

*perceives seeing user 22b and hearing user 22b in location B. Likewise, user 22b listens and sees mannequin 12b but perceives listening and seeing user 22a in location A.”*<sup>22</sup>

**(vi.) Grounds of Rejection to be Reviewed on Appeal<sup>23</sup>**

(1) Claims 1-4, 7-10, 13-17, and 21-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abbasi in view of Choy *et al.*, further in view of Piccionelli.

(2) Claims 5-6, 11-12, and 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Abbasi in view of Choy *et al.*, Piccionelli, and further in view of Gutierrez.

**(vii.) Argument**

Obviousness

“It is well established that the burden is on the PTO to establish a prima facie showing of obviousness, *In re Fritsch*, 972 F.2d. 1260, 23 U.S.P.Q.2d 1780 (C.C.P.A., 1972).”

In *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007), the Supreme Court reversed a decision by the Court of Appeal's for the Federal Circuit decision that reversed a summary judgment of obviousness on the ground that the district court had not adequately identified a motivation to combine two prior art references. The invention was a combination of a prior art repositionable gas pedal, with prior art electronic (rather than mechanical cable) gas pedal position sensing. The Court first rejected the “rigid” teaching suggestion motivation (TSM) requirement applied by the Federal Circuit, since the Court's obviousness decisions had all advocated a “flexible” and “functional” approach that cautioned against “granting a patent based on the combination of elements found in the prior art.”

In *KSR* the Supreme Court even while stating that: “the Court of Appeals drew the wrong conclusion from the risk of courts and patent examiners falling prey to hindsight bias,” warned

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<sup>22</sup> Appellant's Specification page 3, line 2 to page 4, line 3.

<sup>23</sup> The examiner has also provisionally rejected Claims 1-20 on the ground of non-statutory obviousness-type double patenting over claims 1-23 of Application No. 10/735,595, claims 1-26 of Application No. 10/734,618, claims 1-21 of Application No. 10/734,616, and claims 1-20 of Application No. 10/734,617. This issue is not ripe for decision by the Board because as of yet there has been no allowable subject matter indicated in any of the cases. Accordingly this issue is not before the Board but will be dealt with during subsequent prosecution.

that: "a factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning."

The Court of Appeals, finally, drew the wrong conclusion from the risk of courts and patent examiners falling prey to hindsight bias. A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U. S., at 36 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "guard against slipping into the use of hindsight" (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))). Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.

With respect to the genesis of the TSM requirement, the Court noted that although "As is clear from cases such as *Adams*<sup>24</sup>, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known."

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

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<sup>24</sup> *United States v. Adams*, 383 U. S. 39, 40 (1966)

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

**1) Claims 1-4, 7-10, 13-17, and 21-23 are patentable over Abbasi in view of Choy *et al.*, further in view of Piccionelli.**

Claims 1, 9, and 15

For the purpose of this appeal only, claims 1, 9, and 15 stand or fall together. Claim 1 is representative of this group of claims.

Claim 1

Claim 1 is neither described nor rendered obvious over the alleged combination of Abbasi, Choy and Piccionelli.

Claim 1 requires: "... a mannequin ... comprises... a camera coupled to the body, the camera for sending first video signals over a communications network; and a microphone ... for sending first audio signals over the communications network; and a set of goggles including a display to render electrical signals representative of second video signals received from the



communications network and a transducer to transduce electrical signals representative of second audio signals received from the communications network, the respective second video signals and second audio signals at least partially reflect views and sound of a location different from a location of the mannequin in real-time.”

The examiner stated that:

**Regarding claims 1, 9, and 15 Abbasi discloses a virtual encounter system and method comprising, a mannequin having life-like features, the mannequin further comprising: a simulated human body part 55; a camera 35a-b coupled to the body for sending video signals to a communications network 30; and a microphone 40a-b coupled to the/ body for sending audio signals over the communications network; a display to render the video signals received from the camera and a transducer to transduce the audio signals received from the microphone (See Col. 2, lines 54-67). Abbasi discloses all of the claimed subject matter with the exception of explicitly disclosing the feature of providing a video display in the form of goggles. However, it is the examiner's position that providing a head mounted display is old and well known in a virtual reality environment. In addition, Choy teaches a virtual reality system wherein users are provided with their own headsets for displaying images and sound (See Choy, Col. 3, lines 1-6, lines 41-45; Fig 1, headset output) to provide images of a person with whom the user wishes to fantasize. In view of Choy, it would have been obvious to one of ordinary skill in the art to modify the display described in Abbasi, by providing a head mounted display/goggles in order to enhance the reality of a virtual environment by allowing a user to fantasize about a person displayed in the headset display.**

**The combination of Abbasi and Choy discloses all of the claimed subject matter with the exception of explicitly disclosing that the video and audio signals reflect the mannequin's surrounding views and sound in real-time. The examiner agrees with applicant that the audio and video signals described in Choy are retrieved from a database. However, Piccionelli teaches a method of providing live performances over a network, wherein the performance is a virtual sex service (see Col. 5, line 62 - Col. 6, line 2); wherein the performance is provided from a room with video conferencing or other means of transmission of visual, auditory, audiovisual, tactile, smell, and other sensory information. See Piccionelli, col. 5, lines 30-50. Therefore, It would have been obvious to one of ordinary skill in the art to modify the audio/video virtual sex environment described in Abbasi and Choy, by providing teleconferencing to provide surrounding views and thereby deliver a live performances in real-time in response to a user's request. See Piccionelli, Col. 2, lines 35-47.**

The combination of Abbasi and Choy neither describes nor would render obvious the claimed configuration of the goggles and specifically that the goggles are configured to “...render electrical signals representative of second video signals received from the communications network, ..., at least partially reflect surrounding views ... of a location different

from a location of the mannequin ....” Moreover, it would not have been obvious to combine Abbasi and Choy to use Choy’s goggles in Abbasi to provide “a set of goggles including a display to render electrical signals representative of second video signals” that “at least partially reflect surrounding views ... of a location different from a location of the mannequin ...,” as required by claim 1.

Abbasi relates to a different arrangement that would be destroyed where Abbasi modified by Choy, as proposed by the examiner.

Abbasi described two remote users (a) having remote physical contact through surrogates, (b) viewing video presentation on a graphical user interface, and (c) communicating with each other, e.g., chatting, using keyboards and the user interface (abstract, column 7, lines 21-37). Using a pair of goggles, as argued by the examiner, would have at least made the remote users not be able to perform at least (a) and (c), as Abbasi clearly intended. Accordingly, even if Choy does describe a pair of goggles (the appellant does not concede that Choy does), one skilled in the art would not have used such Choy’s goggles with Abbasi to supply the feature of goggles “to render electrical signals representative of second video signals received from the communications network.”

The physical contact described by Abbasi includes kisses between the two users at remote locations through a network (abstract). Each user is equipped with a mechanical surrogate attached to a computer in the network (column 4, lines 62-63). When a first user kisses his mechanical surrogate, sensors attached to the surrogate deliver the feature of the kiss to the mechanical surrogate of the second user through the computers and the network (column 4, line 62 to column 5, line 3). The kiss of the first user is recreated on the mechanical surrogate of the second user so that when the second user kisses his surrogate, the two users effectively kiss each other (column 5, lines 1-9).

As shown in FIG.1, the surrogates 50, 55 are arranged in front of the users 10, 20 with the cameras 35A, 35B, microphones 40A, 40B, and speakers 45A, 45B. To physically kiss the surrogates 50, 55, the users 10, 20 have to be able to see all items, locate the surrogates, and reach the surrogates. Had the user 10 (or the user 20) used “a set of goggles including a display

to render electrical signals representative of second video signals” that “at least partially reflect surrounding views ... of a location different from a location of the mannequin ...,” the user 10 would have had to take off the goggles to locate the surrogate 50, among the camera 35A, microphone 40A, and speaker 45A to kiss the surrogate 50, and put on the goggles to continue viewing video presentations from the goggle.

The alleged modification of Abbasi to include the goggles thus is motivated not by trying to improve on the combination of Abbasi and Choy, but is clearly only motivated by *ex post* reasoning based on Appellant's claims and/or specification. In *KSR* the Supreme Court even while stating that: “the Court of Appeals drew the wrong conclusion from the risk of courts and patent examiners falling prey to hindsight bias,” warned that: “a factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”

Abbasi also requires that each user 10, 20 interacts with a user graphical interface and a keyboard. Each user interface displays start encounter and stop encounter buttons 270, 275, textual chat window 235, and other windows (FIG. 7 and column 7, lines 24-38). The users 10, 20 start or terminate a remote physical contact by selecting encounter buttons 270, 275 (column 7, lines 38-49). The user 10 also communicates with the user 20 by typing texts which are to be received by the user interface of the user 20. Had the user 10 used “a set of goggles including a display to render electrical signals representative of second video signals” that “at least partially reflect surrounding views ... of a location different from a location of the mannequin ...,” the user 10 would have had to take off the goggles to look at his keyboard and his user interface each time the user 10 types, sends, or receives textual messages from the user 20, or each time the user 10 initiates, accepts, or terminates the remote physical contact. For similar reasons, discussed above the user 20 would not have been motivated to use a set of goggles and in particular would not have used “a set of goggles including a display to render electrical signals representative of second video signals” that “at least partially reflect surrounding views ... of a location different from a location of the mannequin ....”

Abbasi requires the users to view the surrogate, the keyboard, and the windows on the user interface so that the users 10, 20 can perform one or more of (a), (b), and (c) simultaneously or sequentially without substantial inconvenience. There is no reason to include in Abbasi “a set

of goggles including a display to render electrical signals representative of second video signals” that “at least partially reflect surrounding views ... of a location different from a location of the mannequin ... ,” to satisfy any of tasks a), (b), and (c) required by Abbasi. To the contrary, one of ordinary skill in the art would not have included such goggles because goggles configured as disclosed by Choy would be an encumbrance in enjoying the benefits espoused by Abbasi. The modification to Abbasi would cause substantial inconvenience for the users to perform (a), (b), and (c), as Abbasi intended. The users would have to take off and put on the goggles repeatedly when performing one of or switching between (a), (b), and (c).

Abbasi described:

In practice, a user can kiss the mechanical surrogate attached to the first computer 15. The user's kiss can be perceived through the sensors located in the first mechanical surrogate 50. The characteristics of the kiss, ..., can be communicated by the first computer 15 to the second computer 25 using a computer network 30. Once the characteristics of the kiss are received, the kiss can be recreated on the second mechanical surrogate 55 attached to the second computer 25. To complete the contact sequence, the second user 20 can kiss the mechanical surrogate 55 attached to the second computer 25. (column 4, line 62 to column 5, line 5)

The computer program further comprises a graphical user interface manager that presents a graphical user interface comprising an address acceptance window, and command buttons to start and stop a contact encounter. The graphical user interface manager sends the address, which can be either logical or physical, to the interface manager. The interface manager uses the address to establish a communication link with a corresponding process. (column 3, lines 34-41, emphasis added)

The graphical user interface manager further presents a textual chat window. The graphical user interface manager conveys the text that is acquires from a keyboard to the interface manager. The graphical user interface manager also receives text from the interface manager and presents it in the textual chat window. The graphical user interface manager can also present a video display window and display video data that it receives from the interface manager. (column 3, lines 42-50, emphasis added)

FIG. 7 is a pictorial representation of a graphical user interface used by a computer program that embodies the method of the present invention. The computer program uses a graphical user interface manager to present a graphical user interface (GUI) comprising a top-level window 230. Within the confines of the top-level window 230, the GUI comprises a textual chat window 235. Using the textual chat window 235, two users can communicate using keystrokes on their respective keyboards. In order to provide a level of privacy, the GUI allows the user to enable or disable audio or video transmission. This is done through the use of command buttons to turn audio on 255 or of 260 and other command buttons to turn video on 245 or off 250. The GUI further comprises a video presentation window 240 that is used to present video arriving from a remote instance of the program. (column 7, lines 22-37, emphasis added)

With a connection established, the computer program according to the present invention allows the user to start a physical contact encounter by selecting the start encounter command button 270. Terminating the encounter is easily accomplished by selecting the stop contact command button 275. (column 7, lines 43-49, emphasis added)

The examiner also stated (emphasis added):

**Applicant supports this argument by stating that to perform kisses successfully as Abbasi describes, each user has to be able to locate his surrogate and to view the user interface for communication; therefore by using a set of goggles, the user would only be able to see the display of the goggles and not be able to see both his surrogate and the user interface. The examiner respectfully disagrees. First, Abbasi does not state that both the display and the surrogate must be visible to the user at all times, as suggested by applicant. Oppositely, one of ordinary skill in the art would find it obvious that combining a goggle display with Abbasi would only require that the user locate the surrogate prior to wearing the goggle display. In addition, Choy utilizes a set of goggles/headset while interfacing with a surrogate/sexual partner. Thus, it is not necessary to view the surrogate while wearing the headset.**

Appellant respectfully disagrees. Abbasi clearly shows that the users are able to view multiple windows on the computer display, the surrogate, and the keyboard all the time, which is the basis for the users to perform (a), (b), and (c), and does not suggest that anything less than being able to view these at the same time would be desirable. As explained previously, to have Abbasi function as intended, it is not sufficient to “locate the surrogate prior to wearing the goggle display.” To the contrary, each user would have to take off and put on the goggles repeatedly. For example, a user has to take off the goggles to check on the computer display whether the other user has terminated the remote physical contact, to type texts to be displayed to the other user, to view texts sent from the other user, to start or receive another, e.g., a second kiss, and others. Inclusion of the goggles would have brought substantial inconvenience to Abbasi's users and modified Abbasi to function in a manner unintended by Abbasi.

Choy does not provide any reason for combining  
Choy's goggles and Abbasi.

The examiner indicated that Choy provided reasons for combining Choy's goggles and Abbasi. However, Choy's user does not communicate with a remote user in the manner the users of Abbasi do, e.g., through multiple windows on a computer display and/or a keyboard. For at

least the reasons stated above, one skilled in the art would not have used Choy's goggles in Abbasi.

Choy alone does not describe and would not have made obvious at least "a set of goggles including a display to render electrical signals representative of second video signals" that "at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real time", as recited by claim 1. Choy describes a headset that provides a user with views of an avatar in a virtual environment (column 11, lines 13-25), and does not display video signals that "at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real time."

No logical reason exists in the record for motivation  
the combination of Abbasi and Choy.

No logical reasoning has been presented by the examiner to support the alleged modification of Abbasi by Choy to include the goggles, as claimed. The only motivation is based on ex post reasoning gleaned from Appellant's claims and/or specification.

Piccionelli does not cure the deficiencies in  
Abbasi/Choy.

The examiner further stated:

**The combination of Abbasi and Choy discloses all of the claimed subject matter with the exception of explicitly disclosing that the video and audio signals reflect the mannequin's surrounding views and sound in real-time. The examiner agrees with applicant that the audio and video signals described in Choy are retrieved from a database. However, Piccionelli teaches a method of providing live performances over a network, wherein the performance is a virtual sex service (see Col. 5, line 62 - Col. 6, line 2); wherein the performance is provided from a room with video conferencing or other means of transmission of visual, auditory, audiovisual, tactile, smell, and other sensory information. See Piccionelli, col. 5, lines 30-50. Therefore, It would have been obvious to one of ordinary skill in the art to modify the audio/video virtual sex environment described in Abbasi and Choy, by providing teleconferencing to provide surrounding views and thereby deliver a live performances in real-time in response to a user's request. See Piccionelli, Col. 2, lines 35-47.**

Piccionelli has nothing to do with “a mannequin, ... and a set of goggles” that include features recited in claim 1. Piccionelli's user requests or views on-line live performances using a user interface of a computer (claim 6). Even if Piccionelli were combined with Abbasi (Appellant does not concede that it would have been obvious to combine the references), the result would not include “a set of goggles” with features recited in claim 1.

One skilled in the art would not have modified the alleged combination of Abbasi and Choy to display video signals that “at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real time,” using Piccionelli because the modification would have made Abbasi's system not work as intended and would have also made Choy's system not work as intended, and would have destroyed the advantages of Choy's system. According to Choy, creating the avatar and the virtual environment provides advantages. For example, “the user will be able to select with whom they wish to interact with (a film star for instance)” (column 2, lines 8-9), or “[T]he use of computer generated imaginary in virtual reality means that both the avatars, and the environments they are both to be experienced within, can be many and varied” (column 11, lines 18-20). For at least these reasons, one skilled in the art also would not have combined Choy and Piccionelli, even if Piccionelli describes live performances over a network, as the examiner stated.

Even if one of ordinary skill in the art had tried to combine Choy and Piccionelli, he/she would have still needed to make additional modifications that are not addressed by the examiner, namely, to accommodate Piccionelli's live performances because they are not displayed in goggles, but on-line on a computer display in real time, moreover Choy's goggles do not receive real time information. One of ordinary skill in the art would have made additional modifications, motivated not by the references or logical reasons but based on Appellant's claims/specification to show Piccionelli's live performances in Choy's goggles.

In summary, none of Abbasi, Choy, and Piccionelli alone or in combination with the other cited references either describes or would have made obvious all of the features of claim 1. Moreover, it would not have been obvious to combine Abbasi and Choy because such a combination would have made Abbasi not function as intended and the alleged combination of Abbasi and Piccionelli would not have made obvious the features of amended claim 1. Finally, it

would not have been obvious to combine Choy and Piccionelli because such a combination destroys the advantages of Choy's system and would not have succeeded.

Claims 2-3, 10, 14, and 16-17

For the purposes of this appeal only, claims 2-3, 10-12, 14, and 16-17 stand or fall together. Appellant's claim 2 is representative of this group of claims.

Claim 2

Claim 2 limits claim 1 and requires the mannequin being at a first location with the camera being a first camera and the microphone being a first microphone, the transducer being a first transducer, and the set of goggles being a first set of goggles. The system further includes a second mannequin disposed in the different location from the first location and a second set of goggles to receive the first video signals from the first camera and a second transducer to receive the first audio signals from the first microphone. The second mannequin has life-like features, the mannequin comprising a body, a second microphone to send the second audio signals to the communications network to be received by the first transducer, and a second camera to send the second video signals to the communications network to be received by the first set of goggles.

It would not have been obvious to modify Abbasi to include "a second set of goggles to receive the first video signals from the first camera," for at least reasons discussed associated with the "set of goggles" recited by claim 1.

Claims 21-23

For the purposes of this appeal only, claims 21-23 stand or fall together. Appellant's claim 21 is representative of this group of claims.

Claim 21

Claim 21 limits claim 1 and requires "a computer system modifying one or more characteristics of the of the second audio signals ... the transduced electrical signals representing the modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin." None of



Abbasi, Choy, and Piccionelli describes or would have made obvious at least these features of claim 21. It would not have been obvious to combine the references, and even if they were combined, the result would not have been the features of claim 21.

The examiner stated (emphasis added):

**Regarding claims 21-23, Abbasi does not explicitly disclose the feature of modifying one or more characteristics of audio signals from a microphone and sending the modified audio signal over a communication network. Abbasi discloses the capability to receive audio information from a microphone attached to the first computing device, wherein the audio is then conveyed to a second computing device where it is routed to a speaker system or audio output unit. See Col. 2, lines 63-67. It is not explicitly disclosed that the audio signal from the microphone is modified. However, the examiner takes official notice that the feature of modifying audio signals that are captured via microphone is notoriously old and well known. For example, once an analog signal (voice) is captured by the microphone, it would be obvious to one of ordinary skill to modify the analog signal by digitizing and/or compressing the signal in order to store or transmit the data.**

Appellant respectfully disagrees. The examiner admits that Abbasi fails to describe “modifying one or more characteristics of audio signals.” The examiner’s official notice does not address the feature of “the transduced electrical signals representing the modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin.” The examiner appears to argue that the claimed feature of “the transduced electrical signals representing the modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin,” merely would involve converting an analog signal by digitizing and/or compressing the signal in order to store or transmit the data.

Appellant contends that the examiner’s reasoning is incorrect at least because the mere acts of digitizing and/or compressing the signal neither describe nor would have rendered over the entire claimed feature of: “a computer system modifying one or more characteristics of the of the second audio signals so that the transduced electrical signals representing the modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin.” Such a feature is not suggested by merely compressing or converting an analog signal to a digital signal.

### Claims 7 and 13

For the purposes of this appeal only, claims 7 and 13 stand or fall together. Appellant's claim 7 is representative of this group of claims.

These claims are distinguished over Abbasi, Choy, and Piccionelli, at least because it would not have been obvious to modify Abbasi with the other references to include a "set of goggles" including "a receiver to receive the video signals" that "at least partially reflect views ... of a location different from a location of the mannequin in real-time." As explained previously, it would not have been obvious to combine Abbasi and Choy to provide "a set of goggles including a display to render electrical signals representative of second video signals" that "at least partially reflect surrounding views ... of a location different from a location of the mannequin ...."

### Claim 4

Claim 4 is patentable over Abbasi, Choy, and Piccionelli, at least because it would not have been obvious to modify Abbasi with the other references to include "an interface having one or more channels for ... sending the second video signals to the set of goggles." Abbasi, Choy, and Piccionelli do not in combination suggest the second video signals and hence would not suggest the claimed interface.

### Claim 8

Claim 8 is patentable over Abbasi, Choy, and Piccionelli, at least because it would not have been obvious to modify Abbasi with the other references to include "a transmitter to wirelessly send ... the first video signals to the communication network" and "a set of goggles including a display to render electrical signals representative of second video signals" that "at least partially reflect surrounding views ... of a location different from a location of the mannequin ...." As explained previously, it would not have been obvious to combine Abbasi and Choy to provide "a set of goggles including a display to render electrical signals representative of second video signals" that "at least partially reflect surrounding views ... of a location different from a location of the mannequin ...."

**3) Claims 5-6, 11-12, and 18-20 are  
patentable over Abbasi in view of Choy *et al.*,  
Piccionelli, and further in view of Gutierrez.**

Claims 5, 11, and 18

For the purposes of this appeal only, claims 5, 11, and 18 stand or fall together.  
Appellant's claim 5 is representative of this group of claims.

Claim 5

As explained for claim 1, from which claim 5 depends, Abbasi, Choy, and Piccionelli do not describe and would not have made obvious "a set of goggles including a display to render electrical signals representative of second video signals" that "at least partially reflect surrounding views ... of a location different from a location of the mannequin ...," as recited by claim 1. Gutierrez likewise does not suggest the feature of the goggles as configured and therefore does not remedy the deficiencies of Abbasi, Choy, and Piccionelli regarding at least the above recited features of claim 1.

Claims 6, 12, and 19

For the purposes of this appeal only, claims 6, 12, and 19 stand or fall together.  
Appellant's claim 6 is representative of this group of claims.

Claim 6

The examiner stated:

**The combination of Abbasi, Choy, and Piccionelli discloses all of the claimed subject matter with the exception of explicitly disclosing the feature of ...; (as per claims 6, 12, 19, and 20) positioning the microphone in an ear canal of the simulated body. However, Gutierrez teaches a virtual mannequin comprising a video camera concealed in the eye socket of the mannequin (Col. 1, lines 57-65). In view of Gutierrez, it would have been obvious to one of ordinary skill in the art to modify the placement of the mannequin ... microphone described in the combination of Abbasi and Choy, by concealing them within the mannequin and thereby avoiding the unattractive appearance of the ... microphone.**

However, Gutierrez's microphone is not placed in an ear canal. Instead, as shown in FIG. 7, Gutierrez's microphone 112 is within the mannequin body away from the head of the mannequin. Accordingly, none of Abbasi, Choy, Piccionelli, and Gutierrez, describes or would have made obvious that "the microphone is positioned within the ear canal," as recited by claim 6.

#### Claim 20

Claim 20 depends from claim 15 and recites "...each include an eye socket to support each respective camera and an ear canal to support each respective microphone." Claim 20 is patentable for at least the reasons discussed for claim 6.

#### **Conclusion**

Appellant submits that claims 1-23 are patentable over the art of record . Therefore, the Examiner erred in rejecting Appellant's claims and the rejections should be reversed.

Respectfully submitted,

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## **Appendix of Claims**

1. A virtual encounter system comprising,  
a mannequin having life-like features, the mannequin comprises:
  - a body;
  - a camera coupled to the body, the camera for sending first video signals over a communications network; and
  - a microphone coupled to the body, the microphone for sending first audio signals over the communications network; and
  - a set of goggles including a display to render electrical signals representative of second video signals received from the communications network and a transducer to transduce electrical signals representative of second audio signals received from the communications network, the respective second video signals and second audio signals at least partially reflect views and sound of a location different from a location of the mannequin in real-time.
  
2. The system of claim 1, wherein the mannequin is at a first location with the camera being a first camera and the microphone being a first microphone, the transducer being a first transducer, and the set of goggles being a first set of goggles, with the system further comprising:
  - a second mannequin disposed in the different location from the first location, the second mannequin having life-like features, the mannequin comprises:
    - a body;
    - a second microphone to send the second audio signals to the communications network to be received by the first transducer;
    - a second camera to send the second video signals to the communications network to be received by the first set of goggles; and
    - a second set of goggles to receive the first video signals from the first camera and a second transducer to receive the first audio signals from the first microphone.
  
3. The system of claim 2, wherein the communications network comprises:
  - a first communication gateway in the first location; and

a second communication gateway in the second location, the second gateway connected to the first gateway via the communication network.

4. The system of claim 1, wherein the communications network comprises an interface having one or more channels for:

- receiving the first audio signals from the microphone;
- receiving the first video signals from the camera;
- sending the second video signals to the set of goggles; and
- sending the second audio signals to the transducer.

5. The system of claim 1, wherein the body includes an eye socket and the camera is positioned in the eye socket.

6. The system of claim 1, wherein the body includes an ear canal and the microphone is positioned within the ear canal.

7. The system of claim 1, wherein the set of goggles comprises a receiver to receive the video signals.

8. The system of claim 1, wherein the mannequin comprises a transmitter to wirelessly send the first audio signals and the first video signals to the communications network.

9. A method of having a virtual encounter, comprising:

- sending first audio signals over a communications network, the first audio signals being produced from a microphone coupled to a mannequin having life-like features;
- sending first video signals over the communications network, the first video signals being produced from a camera coupled to the mannequin;
- rendering second video signals received from the communications network using a display device embedded in a set of goggles; and

transducing second audio signals received from the communications network using a transducer embedded in the set of goggles, the second video and second audio signal at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real-time.

10. The method of claim 9, further comprising:

sending the second audio signals to the communications network from a second microphone coupled to a second mannequin, the second mannequin having life-like features;

sending the second video signals to the communications network from a second camera coupled to the second mannequin;

rendering the first video signals received from the communications network onto a monitor coupled to a second set of goggles; and

transducing the first audio signals received from the communications network using a second transducer embedded in the second set of goggles.

11. The method of claim 10, wherein the first and the second mannequins include an eye socket and the camera is positioned in the eye socket.

12. The method of claim 10, wherein the first and the second mannequins include an ear canal and further comprising positioning the microphone within the ear canal.

13. The method of claim 9, wherein the set of goggles comprises a receiver to receive the video signals.

14. The method of claim 10, wherein the first and the second mannequins further comprise a transmitter to wirelessly send the audio signals and the video signals to the communications network.

15. A virtual encounter system comprising:

a mannequin having life-like features, the mannequin having a human-like body supporting:

a camera for sending first video signals over a communications network; and

a microphone for sending first audio signals over the communications network; with the system further comprising:

a set of goggles housing a display device to render second video signals received from the communications network and a transducer device to transduce second audio signals received from the communications network, the respective second video signals and second audio signals at least partially reflect surrounding views and sound of a location different from a location of the mannequin in real-time.

16. The system of claim 15 wherein the mannequin is at a first location with the camera being a first camera and the microphone being a first microphone and the set of goggles being a first set of goggles, and with the system further comprising:

a second mannequin in the different location from the first location, the second mannequin having a second microphone and a second camera to send the second representative audio signals and video signals to the display device in the first set of goggles and the transducer device in the first set of goggles; and

a second set of goggles to receive the first video signals from the first camera and a second transducer to receive the first audio signals from the first microphone.

17. The system of claim 16, wherein the communications network comprises:

a first communication gateway in the first location; and

a second communication gateway in the second location,

the second gateway connected to the first gateway via the communications network and with the first gateway configured to couple to the first camera and the first microphone on the first mannequin, and to the first display and the first transducer on the first set of goggles, and the second gateway configured to couple to the second camera and second microphone on the second mannequin and the second display and the second transducer of the second set of goggles.



18. The system of claim 15 wherein the body includes an eye socket and the camera is positioned in the eye socket.

19. The system of claim 15 wherein the body includes an ear canal and the microphone is positioned within the ear canal.

20. The system of claim 16, wherein the body of the first mannequin is a first body, second mannequin has a second body, and the first and second bodies each include an eye socket to support each respective camera and an ear canal to support each respective microphone.

21. The virtual encounter system of claim 1, further comprising a computer system modifying one or more characteristics of the of the second audio signals so that the transduced electrical signals representing the modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin.

22. The virtual encounter system of claim 15, further comprising a computer system modifying one or more characteristics of the of the second audio signals so that the transduced modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin.

23. The method of claim 9, further comprising modifying one or more characteristics of the of the second audio signals so that the transduced modified, second audio signals at the set of goggles represent at least partially modified sound of the surrounding of the location different from the location of the mannequin.

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**Evidence Appendix**

**NONE**

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### **Related Proceedings Appendix**

**NONE**